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|--|---|
| Application Number | 10/624,356 |
| Filing Date | 21 July 2003 |
| First Named Inventor | Aaron Scott Lukas, et al. |
| Title | Non-Thermal Process for Forming |
| Art Unit | 1762 |
| Examiner Name | |
| Attorney Docket Number | 06336P USA |

| I hereby appoint: | | | | | |
|--|---|----------------|---------------------|----------------------------|-----|
| X Practitioners at Customer Number: | 23543 | | | | |
| OR | | | | | |
| Practitioner(s) named below: | | | | | |
| Name | | | Registration N | Number | 7 |
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| as my/our attorney(s) or agent(s) to prosecu Trademark Office connected therewith. | te the application identified above, | and to trans | sact all business i | n the United States Patent | and |
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| I am the: | | 1 ax | | | |
| Applicant/Inventor. | | | | | |
| X Assignee of record of the entire inte | erest See 37 CFR 3 71 | | | • | |
| Statement under 37 CFR 3.73(b) is | | | | | |
| | SIGNATURE of Applicant or Ass | signee of F | Record | | |
| Name Mark L. Rodgers | | | | | |
| Signature MC27CL | | | | | |
| Date 3 November 2003 | Date 3 November 2003 Telephone 610-481-8817 | | | | |
| NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*. | | | | | |
| *Total of 1 forms are sul | omitted. | | | | |

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. B x 1450, Alexandria, VA 22313-1450.

PTO/SB/96 (08-00)

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| SIAIEMENI UND | ER 37 CFR 3.73(b) | | | | | |
|--|--|--|--|--|--|--|
| Applicant/Patent Owner: Aaron Scott Lukas, et al. | | | | | | |
| Application No./Patent No.: 10/624,356 | Filed/Issue Date: 21 July 2003 | | | | | |
| Entitled: Non-Thermal Process for Forming Porous Low Dielectric Constant Films | | | | | | |
| Air Products and Chemicals, Inc. , a corporation | | | | | | |
| (Name of Assignee) (Type of As | esignee, e.g., corporation, partnership, university, government agency, etc.) | | | | | |
| states that it is: | | | | | | |
| 1. X the assignee of the entire right, title, and interest | ;; or | | | | | |
| 2. an assignee of less than the entire right, title and | t interest | | | | | |
| The extent (by, percentage) of its ownership inte in the patent application/patent identified above by virtue | | | | | | |
| | | | | | | |
| A. [x] An assignment from the inventor(s) of the patent was recorded in the United States Patent and Tr which a copy thereof is attached. | application/patent identified above. The assignment rademark Office at Reel, Frame, or for | | | | | |
| OR | | | | | | |
| B. [] A chain of title from the inventor(s), of the patent assignee as shown below: | | | | | | |
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| [] Additional documents in the chain of title ar | e listed on a supplemental sheet. | | | | | |
| [] Copies of assignments or other documents in the characteristic [NOTE: A separate copy (i.e., the original assignment must be submitted to Assignment Division in accordance recorded in the records of the USPTO. See MPEP 3 | nt document or a true copy of the original document) ance with 37 CFR Part 3, if the assignment is to be | | | | | |
| The undersigned (whose title is supplied below) is author | rized to act on behalf of the assignee. | | | | | |
| 3 November 2003 | Mark L. Rodgers | | | | | |
| Date | Typed or printed name | | | | | |
| | Signature | | | | | |
| • | Assistant General Counsel, Patents | | | | | |
| | Title | | | | | |

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ASSIGNMENT

For value received, we, Aaron Scott Lukas, Mark Leonard O'Neill, Mark Daniel Bitner, Jean Louise Vincent, Raymond Nicholas Vrtis, and Eugene Joseph Karwacki, Jr., hereby sell, assign, and transfer to **AIR PRODUCTS AND CHEMICALS, INC.**, a corporation of the State of Delaware, having an office at 7201 Hamilton Boulevard, Allentown, PA 18195-1501, the entire right, title, and interest in and to the invention relating to

NON-THERMAL PROCESS FOR FORMING POROUS LOW DIELECTRIC CONSTANT FILMS

described in our application for Letters Patent of the United States (identified by Docket No. 06336P USA) executed of even date herewith, in and to all Letters Patent which may be issued upon said application, in and to any divisional or reissue applications based thereon, and in and to all Letters Patent upon said invention or improvements which may be granted in foreign countries. We hereby also assign and convey to said **AIR PRODUCTS AND CHEMICALS**, **INC.**, all the rights accruing to us by virtue of the International Convention for the Protection of Industrial Property (Art. 4), including the right to apply for and to have patents issued in its own name.

And we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and the Officials of the Patent Offices of all other countries to issue the Letters Patent of their respective countries to said **AIR PRODUCTS AND CHEMICALS, INC.**, as assignee of the entire right, title, and interest in and to the same.

And we hereby promise and agree to execute all papers and perform all acts necessary to secure to and vest in said **AIR PRODUCTS AND CHEMICALS, INC.**, its successors and assigns, the rights conveyed as herein set forth.

| Aaron Scott Lukas (L.S.) | Mark Leonard O'Neill (L.S.) |
|--|------------------------------------|
| July 21, 2003 Date | July 21 2003 |
| Wash Soul Street (L.S.) Mark Daniel Bitner | Jean Louise Vincent (L.S.) |
| Tily 21,2003 Date | July 25, 2003 Date |
| Raymond Nicholas Vrtis | Eugene deseph Karwacki, Jr. (L.S.) |
| July, 21, 2003 | Js/7 25 2013 Date |

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PTO/SB/01 (03-01)
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| DECLARATION FOR UTILITY OR | Att rn y Docket Nun | nber 06336P USA | | |
|---|----------------------|---------------------------|--|--|
| DESIGN | First Named Inv ntor | Aaron Scott Lukas, et al. | | |
| PATENT APPLICATION | COMPLETE IF KNOWN | | | |
| (37 CFR 1.63) | Application Number | 10/624,356 | | |
| X Declaration Declaration | Filing Date | 21 July 2003 | | |
| Submitted OR Submitted after Initial with Initial Filing (surcharge | Group Art Unit | 1762 | | |
| Filing (37 ČFR 1.16 (e)) required) | Examiner Name | | | |

| <u> </u> | | requirea) | Examiner Name | e | | | | |
|---|--|-----------------------------|--|--------------------------------------|---|----------|--|--|
| As a below named inventor, I hereby declare that: | | | | | | | | |
| | My residence, mailing address, and citizenship are as stated below next to my name. | | | | | | | |
| | I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: | | | | | | | |
| | NON-THERMAL PROCE | | | | | | | |
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| | | (Title of t | he Invention) | | | | | |
| | the specification of which | (| , | | | | | |
| | is attached hereto | | | | | | | |
| | OR | | | | | | | |
| | x was filed on (MM/DD/YYYY) | 21 July 2003 | as United St | ates Application I | Number or PCT International | | | |
| | | | | | | | | |
| | Application Number 10/624,3 | 56 and was a | mended on (MM/DD/YY | m | (if applicable). | | | |
| | | | (((((((((((((((((((((((((((((((((((((((| ``/ | (ii applicable). | | | |
| | I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above. | | | | | | | |
| | I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation- in-part applications, material information which became available between the filing date of the prior application and the national or | | | | | | | |
| | PCT International filing date of the | continuation-in-part app | lication. | | | | | |
| | I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for | | | | | | | |
| | patent, inventor's or plant breeder | 's rights certificate(s), o | re also identified below, r any PCT international | by checking the application havin | box, any foreign application for g a filing date before that of the | | | |
| | application on which priority is clair Prior Foreign Application | | Foreign Filing Date | Priority | Certified Copy Attached? | \dashv | | |
| | Number(s) | Country | (MM/DD/YYYY) | Not Claimed | YES NO | _ | | |
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| _ | 7 | | | | | | | |
| L | Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto: | | | | | | | |

[Page 1 of 2]

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| Country | Telepho | one | | | Fax | | |
| I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon. | | | | | | | |
| NAME OF SOLE OR FIRST INV | ENTOR: | | A petitio | on has been fil | ed for this unsigned inventor | | |
| Given Name (first and middle [if any]) Aaron Sco | ott | | Family N | | | | |
| Inventor's Signature Scott Lukas Date July 21, 2003 | | | | | | | |
| Residence: City Lansdale | | State PA | | USA Country | USA Citizenship | | |
| ************************************* | | | | | | | |
| Mailing Address | | | | | | | |
| Lansdale City | PA State | | ZIP | 19446 | USA Country | | |
| NAME OF SECOND INVENTOR | : | | A petitio | on has been fil | ed for this unsigned inventor | | |
| Given Name (first and middle [if any]) Mark Leonard Family Name or Surname O'Neill | | | | | | | |
| Inventor's Male Card Onfiles Date July 21, 2003 | | | | | | | |
| Residence: City Allentown | (| PA State | | USA Country | CANADA Citizenship | | |
| 830 N. 30th Street Mailing Address | | | | | | | |
| Mailing Address | | | | | | | |
| Allentown City | PA State | | ZIP | 18104 | USA | | |
| Additional inventors are being named | · · · · · · · · · · · · · · · · · · · | | · | tor(s) sheet(s) PT0 | | | |

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DECLARATION

ADDITIONAL INVENTOR(S)
Supplemental Sheet
Page __1 of _2

| Name of Additional Joint Inventor, if a | iny: | A petition has been filed for | or this unsigned inventor | | |
|---|--|---------------------------------|---------------------------|--|--|
| Given Name (first and middle [if an | y]) | Family Name of | or Surname | | |
| Mark Daniel | | Bitner | | | |
| Inventor's Mark Jank | Bto | | Date 21,2003 | | |
| Nazareth Residence: City | PA State | USA Country | USA Citizenship | | |
| Mailing Address 17 E. High Street | ······································ | | | | |
| Mailing Address | | | | | |
| City Nazareth | State PA | ZIP 18064 Cou | USA ntry | | |
| Name of Additional Joint Inventor, if a | ny: | A petition has been filed for | this unsigned inventor | | |
| Given Name (first and middle [if any]) | | Family Name or Surname | | | |
| Jean Louise | | Vincent | | | |
| Inventor's Signature | | | Date July 25,209 | | |
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| Malling Address 3943 Suncrest Lane | | | | | |
| Mailing Address | | | | | |
| Bethlehem City | PA State | 18020 ZIP C | USA ountry | | |
| Name of Additional Joint Inventor, if a | ny: | A petition has been filed for t | | | |
| Given Name (first and middle [if any |)) | Family Nam | e or Surname | | |
| Raymond Nicholas | | Vrtis | | | |
| Inventor's Signature Pin | Colus 1 | late- | Date July 21,2003 | | |
| Allentown Residence: City | PA State | USA Country | USA Citizenship | | |
| Mailing Address 2729 W. Allen Street | | | | | |
| Malling Address | | | | | |
| City | PA State | 18104 ZIP | USA Country | | |

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DECLARATION

ADDITIONAL INVENTOR(S)
Supplemental Sheet
Page _2 of _2

| Name of Additional Joint Inventor, if any: A petition has been filed for this unsigned inventor | | | | | | |
|---|-------------|------------|-----------------------------|-------------|---------------------|--|
| Given Name (first and middle [if any]) | | | Family Name or Surname | | | |
| Eugene Joseph | | | Karwacki, J | | | |
| Inventor's Signature year form / our | | | July 25, 2 | | | |
| Residence: City Oxefield | PA State | | USA Country | | USA Citizenship | |
| Mailing Address 5620 Snowdrift Road | | | | | | |
| Mailing Address | | | | | | |
| City Orefield | State PA | | ZIP 18069 | ountr | USA y | |
| Name of Additional Joint Inventor, if an | y: | | A petition has been filed | for thi | s unsigned inventor | |
| Given Name (first and middle [if any] |) | | Family Nam | e or S | umame | |
| | | | | | | |
| Inventor's Signature Date | | | | | | |
| Residence: City | State | | Country | | Citizenship | |
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| Name of Additional Joint Inventor, if ar | ıy: | | A petition has been filed f | | | |
| Given Name (first and middle [if any]) | | | Family Name or Surname | | | |
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| Mailing Address | | | | | | |
| Malling Address | | | | | | |
| City | State | | ZiP | Co | untry | |

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